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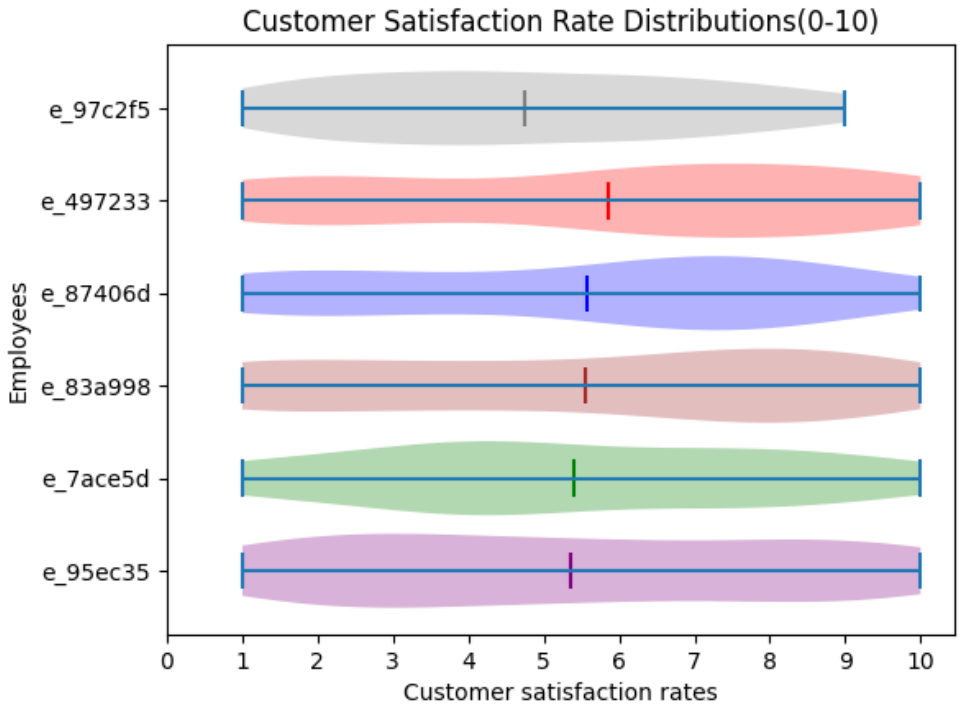
1. Explanatory visualization - Final product visualization

As I mentioned in the proposal, we can identify underperforming employees who earn the same hourly wage, then we can assign them less work or remove them from the job list. This will help us achieve our primary goal of increasing customer satisfaction by assigning more work to top performers.
My final visualization is on the Violin plot that shows the distribution of customer satisfaction rates(from 0 to 10) versus the ratio of employees (with the same hourly wage). In the plot X-axis shows customer satisfaction rates and Y-axis shows a particular employee's performance. The lines inside each violin show where the minimum, median, and maximum customer rates are for each employee.
To make this visualization I joined landscaping.csv and employee.csv, on the left with job_id and employee_id on the right , I got a record for each employee, the date they worked and the customer reviews they got.



Each violin plot shows individual employee records, we can see that only the last employee (e_97c2f5) has a lower customer satisfaction rate because there is no

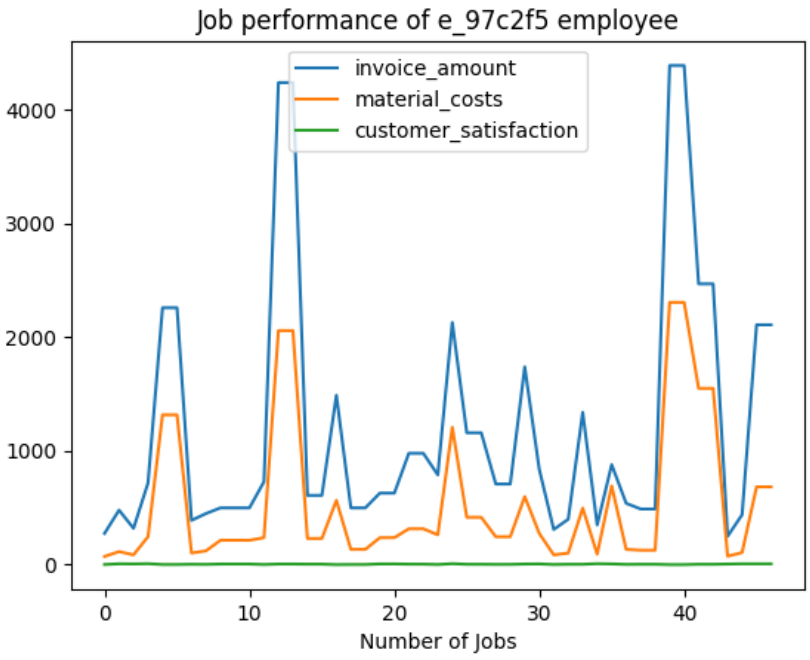
perfect 10 rate (never got a perfect rate 10), its median is less than 5, and all satisfaction levels for other employees were about the same or similar.So we can see that we need to assign more tasks to an employee other than e_97c2f5 to improve our customer service rate.

2. Exploratory Visualization:

Exploratory visualization represents the complexity of Big Data. It displays large data graphs with multiple relationships. Here, I've drawn a graph showing the performance of a single specific employee (e_97c2f5), along with invoice amounts, material costs, and customer satisfaction based on their work.

The x-axis represents the number of jobs he completed and the y-axis represents how much he spent in material cost and how much he got in invoice amount, but for different purposes. So the blue line represents the amount of the invoice he received and the orange line represents the material cost he spent for the same jobs. The green line shows how many customer satisfaction rates he received based on those jobs.

We can anticipate that viewers will understand the concepts of blue and orange lines. but the green line looks straight because the customer ratings range from 0 to 10. and it's very hard to see the magnitude of the rate of customers or only experts can understand why green lines are linear.



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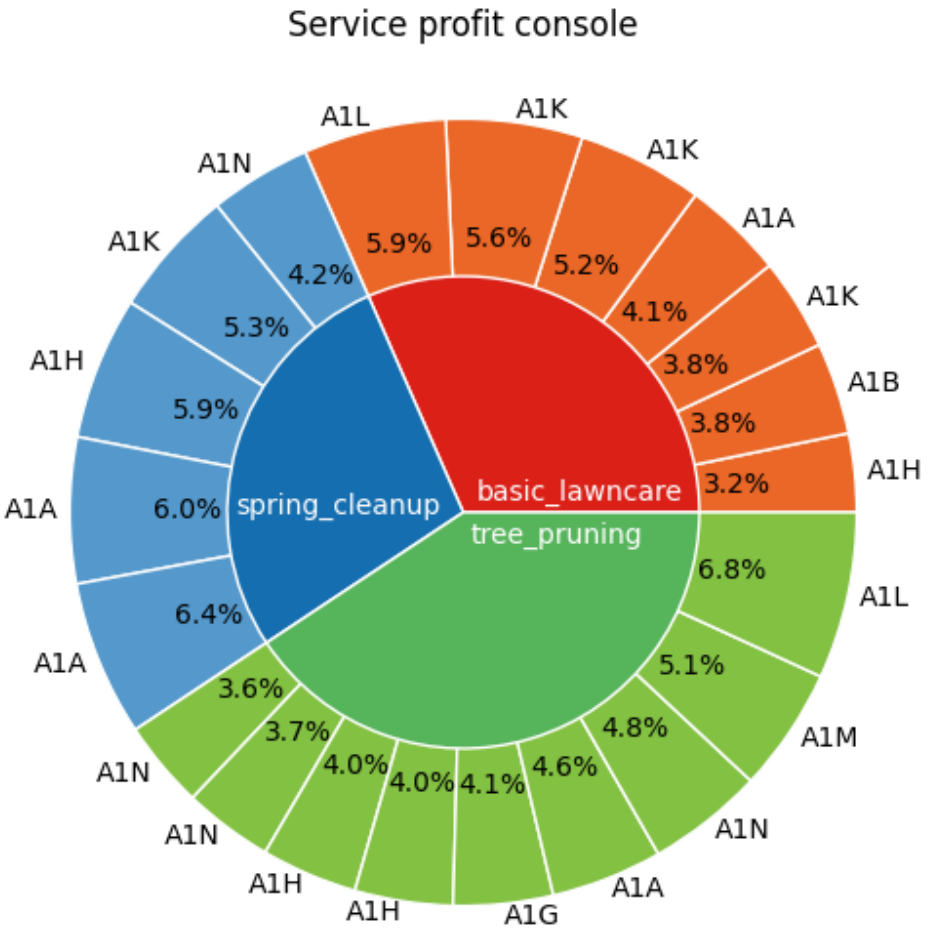
3. Visualization that contains derived data types:

Derived data means that they create new data by combining and manipulating existing raw data. Using the invoice amount minus the material cost, I created a new column called Profit. So From my perspective, the profit column in my data is derived data from invoice amount to material cost.
Visualization represents the profit we have made with a certain type of work during a certain period. The inner layer represents the type of work we perform and the outer layer represents in which area (customer_postal_code) we provided that service according to the type of job and the percentage of the number represents our **Profit** from that work in comparison between that jobs.



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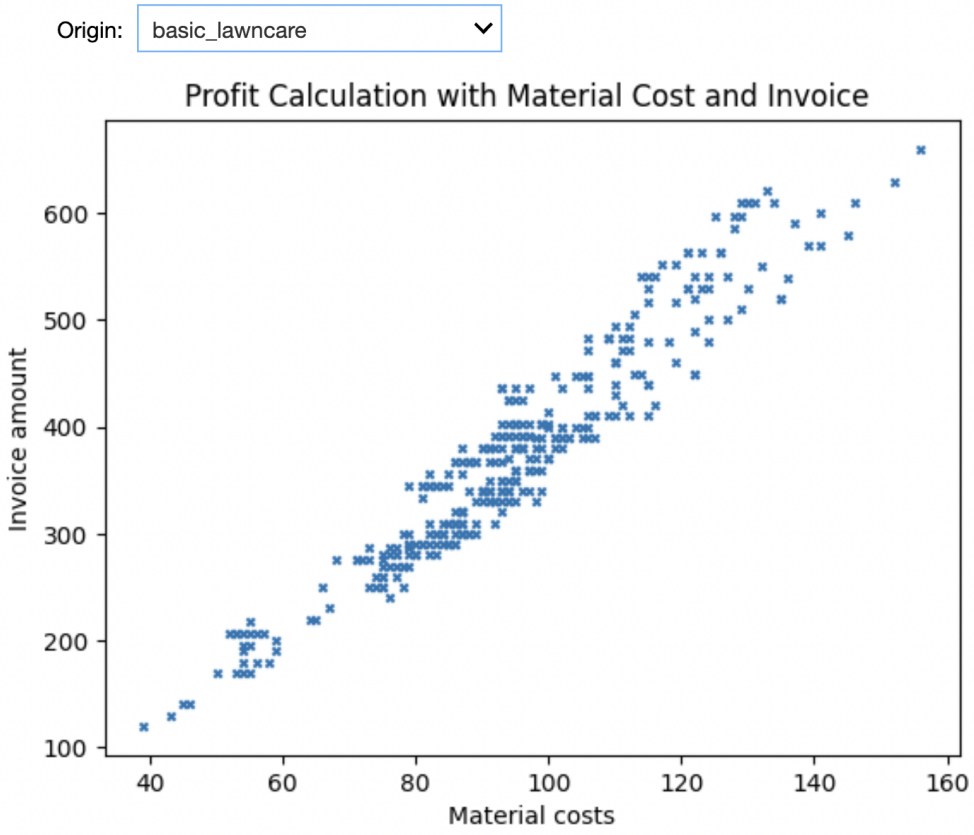
4. Interactive Visualization:

Based on my proposal feedback I worked on more details in particular job type to show the most relevant parts of the data.The interact feature is helpful to show here data based on particular job type with creative User Interface.
Scatter plot represents a graph on a particular job type that shows how many job requests we are getting and how much profit we are getting from that job type for our company revenue.
X-axis shows material costs we are spending for a particular job and Y-axis shows invoice amount we are getting from that job. So we can figure out here which job type gives us the most work and profit (depending on the cost of materials and the amount of the invoice).



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Origin: water_feature